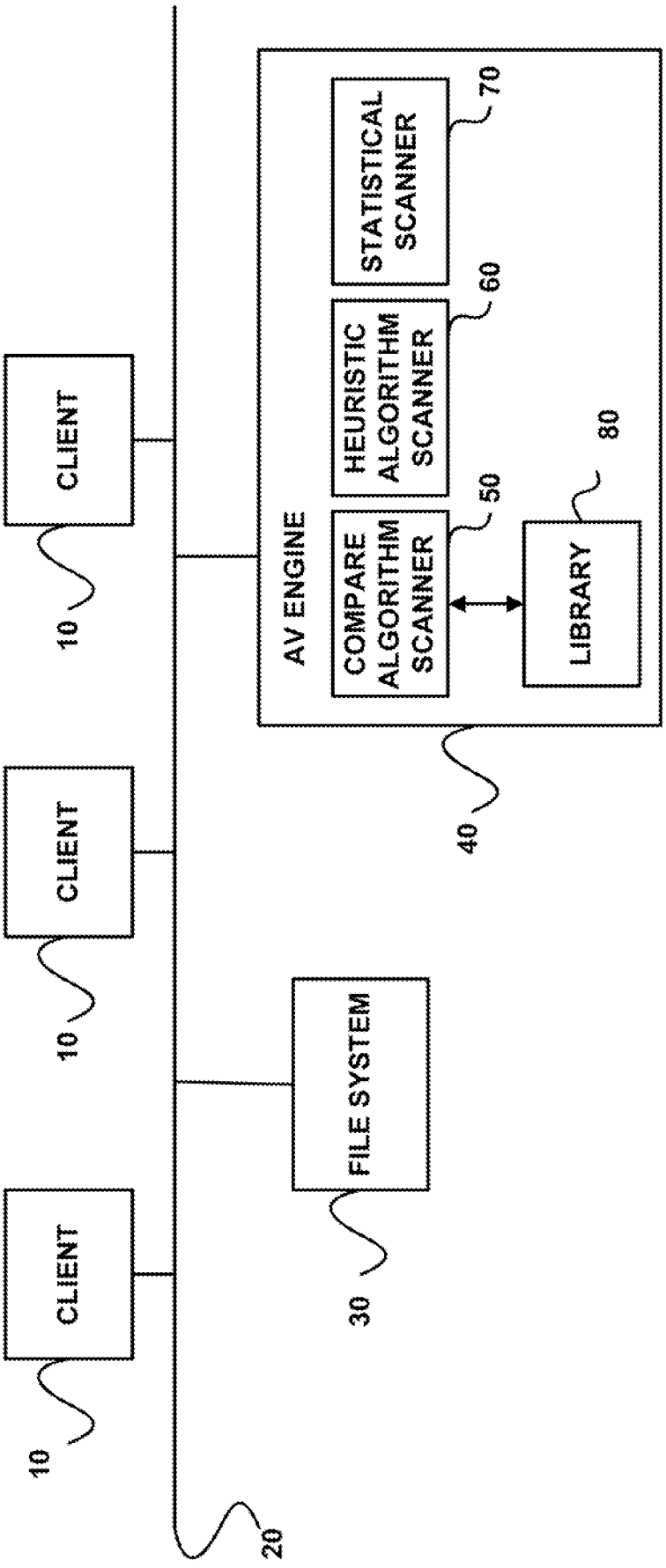
CLIENT
10
CLIENT
10
CLIENT
10
FILE SYSTEM
30
20
AV ENGINE
COMPARE ALGORITHM SCANNER
50
HEURISTIC ALGORITHM SCANNER
60
STATISTICAL SCANNER
70
LIBRARY
80
40

FIGURE 1

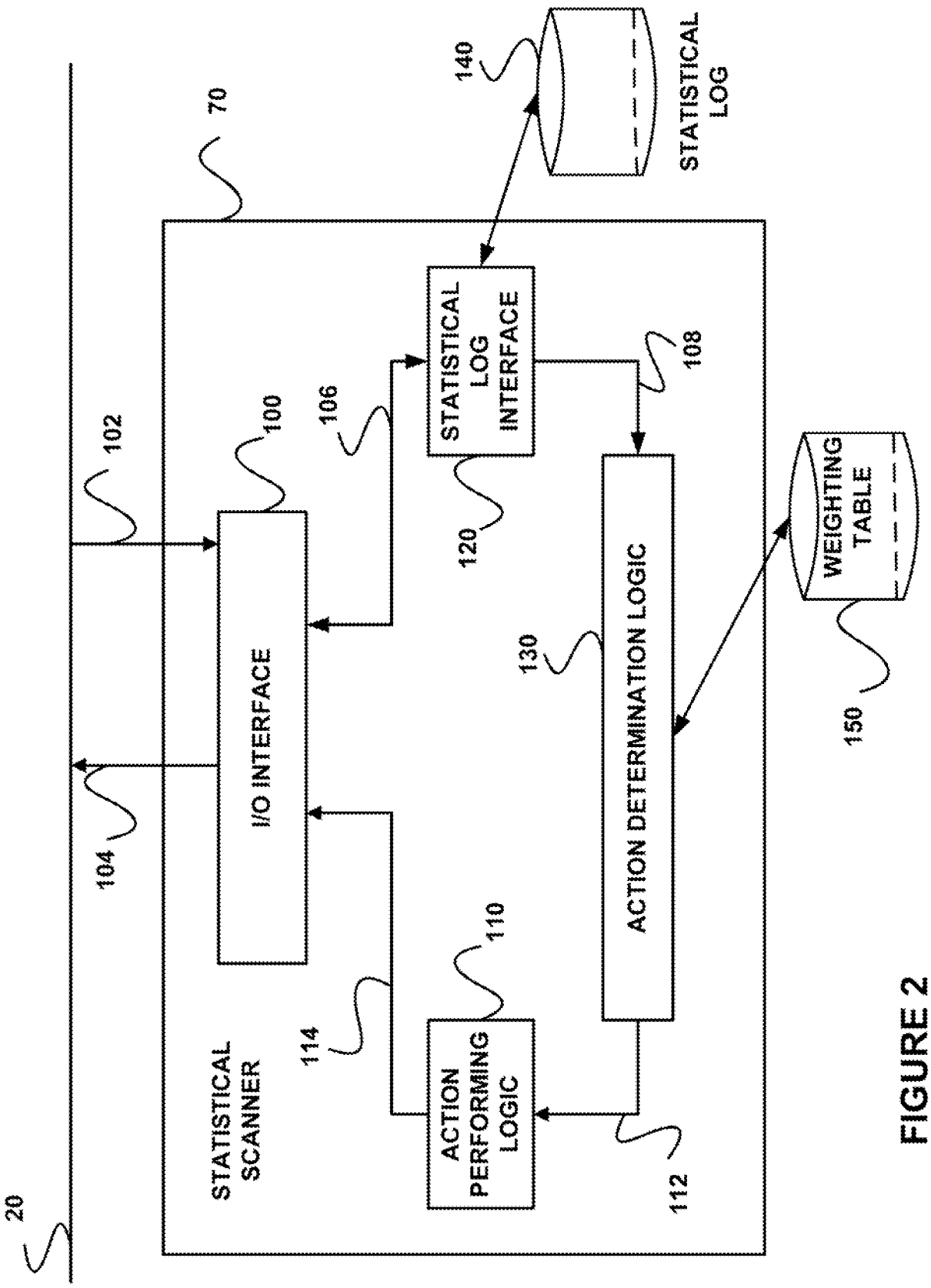
20
70
STATISTICAL SCANNER
I/O INTERFACE
STATISTICAL LOG INTERFACE
ACTION PERFORMING LOGIC
ACTION DETERMINATION LOGIC
STATISTICAL LOG
WEIGHTING TABLE
100
102
104
106
108
110
112
114
120
130
140
150

FIGURE 2

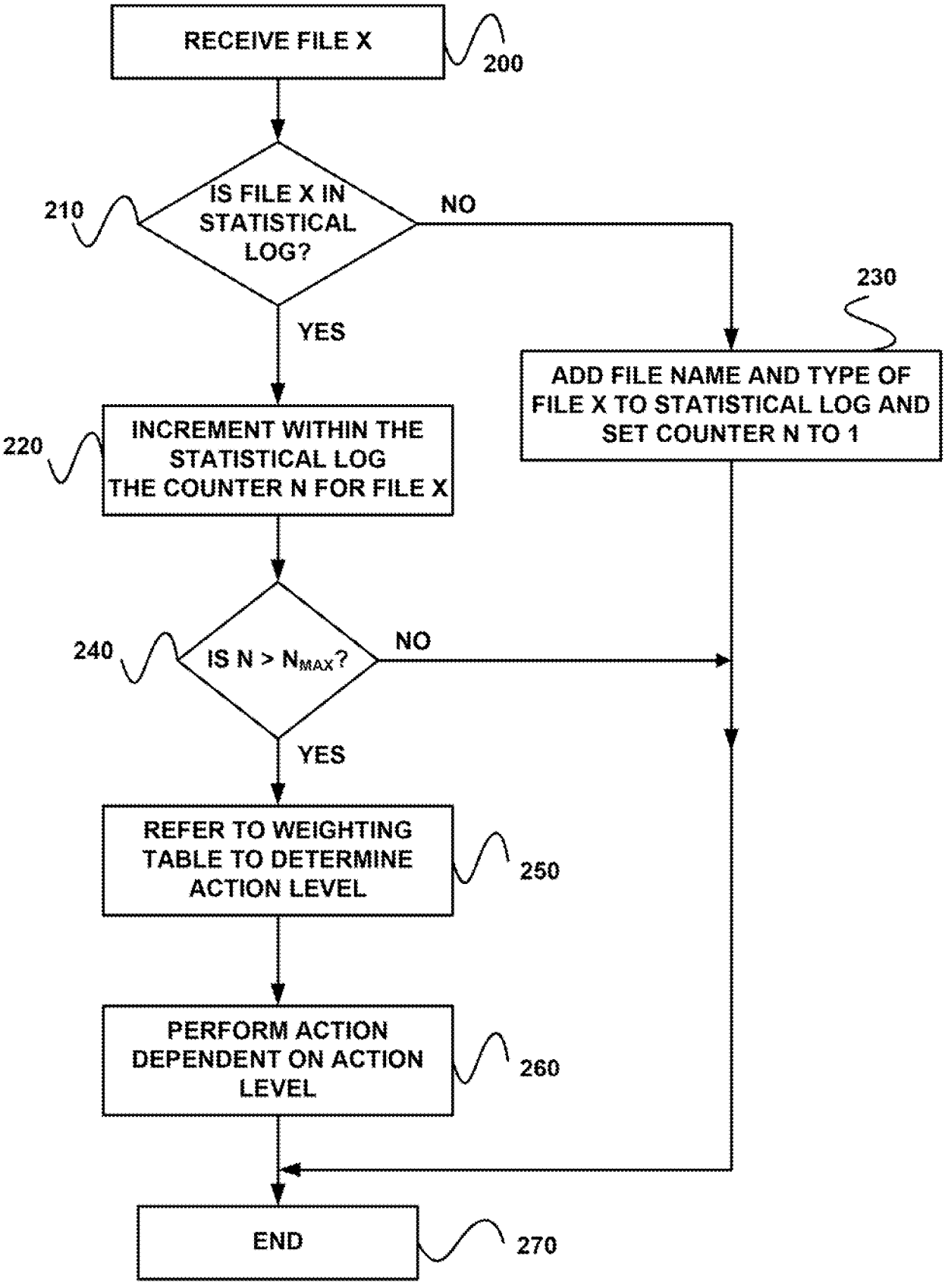
RECEIVE FILE X
200
IS FILE X IN STATISTICAL LOG?
210
NO
YES
230
ADD FILE NAME AND TYPE OF FILE X TO STATISTICAL LOG AND SET COUNTER N TO 1
INCREMENT WITHIN THE STATISTICAL LOG THE COUNTER N FOR FILE X
220
IS N > N_MAX?
240
NO
YES
REFER TO WEIGHTING TABLE TO DETERMINE ACTION LEVEL
250
PERFORM ACTION DEPENDENT ON ACTION LEVEL
260
END
270

FIGURE 3

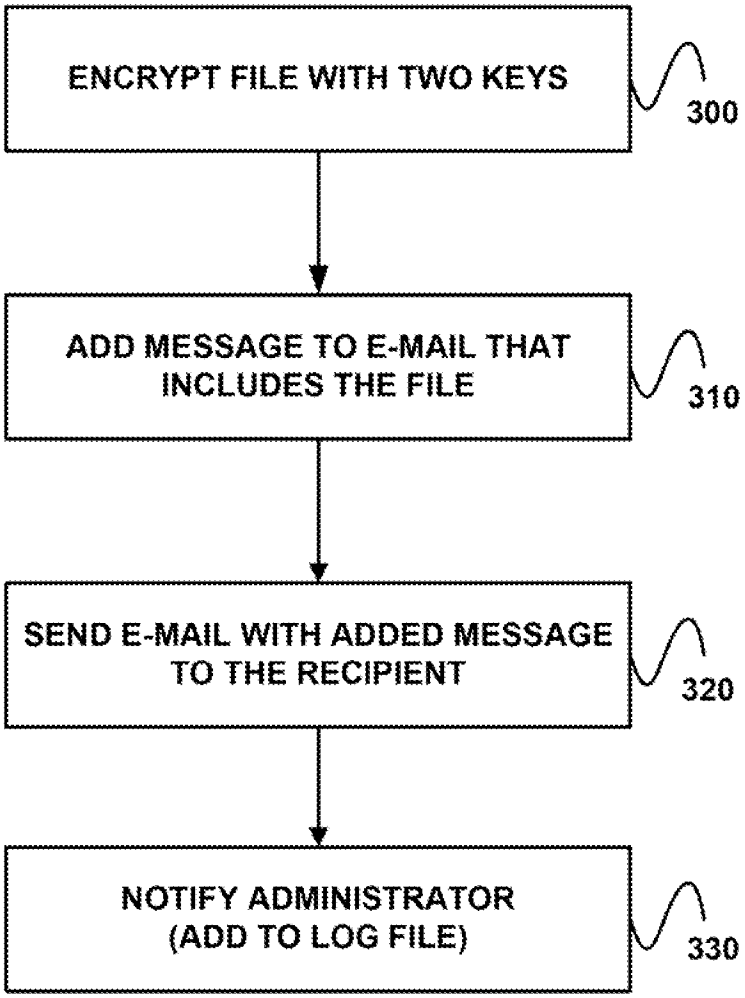
ENCRYPT FILE WITH TWO KEYS
300
ADD MESSAGE TO E-MAIL THAT INCLUDES THE FILE
310
SEND E-MAIL WITH ADDED MESSAGE TO THE RECIPIENT
320
NOTIFY ADMINISTRATOR (ADD TO LOG FILE)
330

FIGURE 4

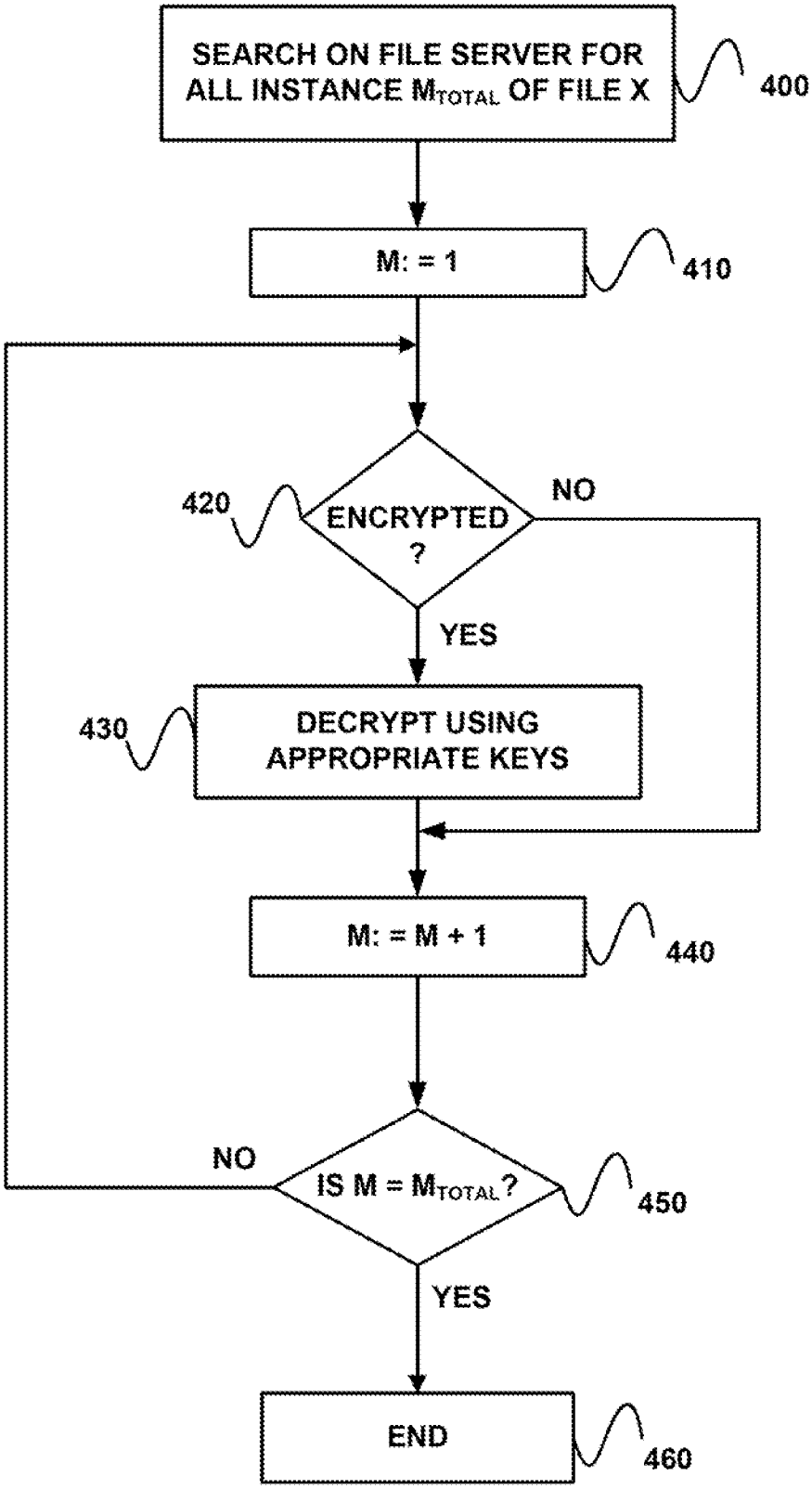
SEARCH ON FILE SERVER FOR ALL INSTANCE M_{TOTAL} OF FILE X
400
M: = 1
410
420
ENCRYPTED ?
NO
YES
430
DECRYPT USING APPROPRIATE KEYS
M: = M + 1
440
NO
IS M = M_{TOTAL}?
450
YES
END
460

FIGURE 5

STATISTICAL LOG

NAME	TYPE	COUNTER
FILE 1	EXE	22
FILE 2	DOC	2
FILE 3	PDF	5
⋮	⋮	⋮

FIGURE 6A

STATISTICAL LOG

NAME	TYPE	SENDER	NUMBER OF OCCURENCES	COUNTER
FILE 1	EXE	USER 1 USER 3 USER 4	12 3 7	24
FILE 2	DOC	USER 4 USER 12	1 1	2
FILE 3	PDF	USER 3 USER 5	1 4	5
⋮	⋮	⋮	⋮	⋮

FIGURE 6B

WEIGHTING TABLE

FILE TYPE	WEIGHTING
EXE	5
BAT	4
VBS	5
COM	4
TXT	1
DOC	3
PDF	1
SCR	2

FIGURE 7